Clay County, Missouri

Planning and Zoning

234 W. Shrader Street, Suite C
Liberty, Missouri 64068-2448

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BUILD GREEN

Final Inspection Form

☐ **Owner** ☐ **Builder** ☐ **Developer**

Permit Holder Name: _____

Address of Permit Holder: _____

City: _____ **State** _____ **Zip Code** _____

Phone Number: ( ) _____ **Mobile Phone:** ( ) _____

Email Address: _____

Location of Project Site (address and/or legal description):
[NOTE: a separate form must be filled out for each project site]

_____

☐ **New Construction** ☐ **Renovation** ☐ **Addition**

Achieved the following National Green Build Standard™ (NGBS) level:

NGBS Green Building Categories			
Bronze	**Silver**	**Gold**	**Emerald**
☐	☐	☐	☐
50% Rebate	**70% Rebate**	**85% Rebate**	**100% Rebate**

Points Breakdown by Category		
Category		**Points Achieved**
Chapter 5	Lot Design, Preparation, and Development (p. 3 – 6)	
Chapter 6	Resource Efficiency (p. 7 – 12)	
Chapter 7	Energy Efficiency (p. 13 – 26)	
Chapter 8	Water Efficiency (p. 27 – 29)	
Chapter 9	Indoor Environmental Quality (p. 30 – 37)	
Chapter 10	Operation, Maintenance, and Building Owner Education (p. 38 – 41)	
Additional Points from Any Category (p. 42)		
	TOTAL POINTS:	

CONFIRMATION STATEMENT

By signing below I hereby confirm that I have completed all the necessary construction guidelines of the Clay County Green Build Program for the project location indicated, and have met the requirements to qualify the project for the Clay County Green Build Program.

Permit Holder:

_____ _____
Signature Date

Clay County Building Official:

_____ _____
Signature Date

Attest:

STATE OF MISSOURI)

County of _____)

Be it remembered that on this _____ day of _____, _____, before me, the undersigned Notary Public, personally appeared _____, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at my office in _____, Missouri and year last written above.

_____

Notary Public

My term expires:

BUILD GREEN

Final Inspection Form

National Green Build Standard™ (NGBS) Grading Matrix

Chapter 5 – Lot Design, Preparation, and Development

500 Lot Design, Preparation, & Development	Points Possible	Points Received
501 Lot Selection		
501.1 Lot		
1 - Infill lot is selected.	4	
2 - A greyfield lot or an EPA-recognized brownfield lot is selected.	5	
501.2 Mass Transportation		
1 - A lot is selected within 1/2 mile of a pedestrian access to a mass transit system or within five miles of a mass transit station with provisions for parking.	3	
2 - Walkways, street crossings, and entrances designed to promote pedestrian activity are provided. New buildings are connected to existing sidewalks and areas of development.	3	
3 - A lot is selected within 1/2 mile of six or more community resources, parks, grocery store, post office, place of worship, community center, daycare center, bank, school, restaurant, medical/dental office, laundromat/dry cleaner.	3	
502 Project Team, Mission Statement & Goals		
502.1 A knowledgeable team is established and team member roles are identified. The project's green goals and objectives are written into a mission statement.	4	
503 Lot Design		
503.1 Natural Resources		
1 - A natural resources inventory is completed under the direction of a qualified professional.	5	
2 - A plan is implemented to conserve the elements identified by the resource inventory as high-priority resources.	6	
3 - Items listed for protection in the resource inventory plan are protected under the direction of a qualified professional.	4	
4 - Basic training in tree or other natural resource protection is provided for the on-site supervisor.	4	
5 - All tree pruning on-site is conducted by a Certified Arborist.	2	

500 Lot Design, Preparation, & Development	Points Possible	Points Received
6 - Ongoing maintenance of vegetation during construction is in accordance with TCIA A300.	3	
503.2 Slope Disturbance		
1 - All or a percentage of development on steep slopes is avoided.		
a. Less than 25 percent	2	
b. 25 percent to 75 percent	3	
c. Greater than 75 percent	4	
2 - Hydrological/soil stability study for steep slopes is completed and used to guide the design of all buildings on the site.	5	
3 - All or a percentage of roads and parking are aligned with natural topography to reduce cut and fill.		
a. Less than 25 percent	1	
b. 25 percent to 75 percent	3	
c. Greater than 75 percent	5	
4 - Long term erosion effects are reduced through the design and implementation of terracing, retaining walls, landscaping, and restabilization techniques.	6	
5 - Underground parking uses the natural slope for parking entrances.	4	
503.3 Soil Disturbance and Erosion		
1 - Construction activities are scheduled to minimize length of time that soils are exposed.	5	
2 - Utilities are installed using one or more alternative means:	5	
a. Tunneling instead of trenching		
b. Use of smaller (low ground pressure) equipment or geomats to spread the weight of construction equipment		
c. Shared utility trenches or easements		
d. Placement of utilities under paved surfaces instead of yards		
3 - Limits of clearing and grading are demarcated on the plan.	5	
503.4 Storm Water Management		
1 - Natural water and drainage features are preserved and used.	6	
2 - A storm water management plan is developed and implemented that minimizes concentrated flows and simulates flows found in natural hydrology (i.e. vegetative swales, french drains, wetlands, drywells, and rain gardens).	6	
3 - All or a percentage of impervious surfaces are minimized and permeable materials are used for driveways, parking areas, walkways, and patios.		

500 Lot Design, Preparation, & Development	Points Possible	Points Received
a. Less than 25 percent	1	
b. 25 percent to 75 percent	3	
c. Greater than 75 percent	5	
4 - A minimum of 75 percent of the roof is vegetated (green roof).	3	
503.5 Landscape Plan		
1 - A plan is formulated to restore or enhance natural vegetation that is cleared during construction. Landscaping is phased to coincide with achievement of final grades to ensure denuded areas are quickly vegetated.	5	
2 - Turf grass species, other vegetation, and trees are selected that are native or regionally appropriate for local growing conditions.	4	
3 - A percentage or all turf areas are limited.		
a. 0 percent	4	
b. Greater than 0 percent to less than 25 percent	3	
c. 25 percent to less than 50 percent	2	
d. 50 percent to 75 percent	1	
4 - Plants with similar watering needs are grouped.	5	
5 - Species and locations for tree planting are identified that will provide summer shading of streets, parking areas, and buildings to moderate temperatures.	5	
6 - Vegetative wind breaks or channels are designed as appropriate for local conditions.	4	
7 - On-site tree trimmings or stump grinding of regionally appropriate trees are used to provide protective mulch during construction, and cleared trees are recycled as sawn lumber or pulp wood.	3	
8 - An integrated pest management plan is developed to minimize chemical use in pesticides and fertilizers.	4	
503.6 Wildlife Habitat. Measures are planned that will support wildlife habitat.	4	
503.7 Mixed-use Development	6	
503.8 Environmentally Sensitive Areas		
1 - Environmentally sensitive areas are avoided.	3	
2 - Compromised environmentally sensitive areas are mitigated or restored.	3	
503.9 Density		
1 - 7 to less than 14 dwelling units per acre.	4	
2 - 14 to less than 21 dwelling units per acre.	7	
3 - 21 or greater dwelling units per acre.	10	

500 Lot Design, Preparation, & Development	Points Possible	Points Received
504 Lot Construction		
504.1 On-site Supervision and Coordination	4	
504.2 Trees and Vegetation		
1 - Fencing or equivalent is installed to protect trees and other vegetation.	3	
2 - Trenching, significant changes in grade, and compaction of soil and critical root zones in "tree save" areas are avoided.	4	
3 - Damage to designated existing trees and vegetation is mitigated during construction through pruning, root pruning, fertilizing, and watering.	4	
504.3 Soil Disturbance and Erosion		
1 - Limits of clearing and grading are staked out.	5	
2 - No disturbance zones are created using fencing or flagging to protect vegetation and sensitive areas from construction activity.	5	
3 - Sediment and erosion controls are installed and maintained in accordance with the storm water pollution prevention plan, where required.	5	
4 - Topsoil is stockpiled and stabilized for later use to establish landscape plantings.	5	
5 - Soil compaction from construction equipment is reduced by distributing the weight of the equipment over a larger area.	3	
6 - Disturbed areas that are complete or to be left unworked for 21 days or more are stabilized within 14 days using methods as recommended by the EPA, or in the approved storm water pollution prevention plan, where required.	3	
7 - Soil is improved with organic amendments and mulch.	3	
8 - Utilities are installed using one or more alternative means.	5	
505 Innovative Practices		
505.1 Driveways and Parking Areas	4	
505.2 Heat Island Mitigation	4	
1 - Shading of hardscaping.		
2 - Light-colored hardscaping.		
TOTAL POINTS FOR SECTION 500		

Chapter 6 – Resource Efficiency

600 Resource Efficiency	Points Possible	Points Received
601 Quality of Construction Materials and Waste		
601.1 Conditioned Floor Area		
1 - Less than or equal to 1,000 square feet.	15	
2 - Less than or equal to 1,500 square feet.	12	
3 - Less than or equal to 2,000 square feet.	9	
4 - Less than or equal to 2,500 square feet.	6	
5 - Greater than 4,000 square feet.	**Mandatory**	
601.2 Material Usage. Building-code-compliant structural systems or advanced framing techniques are implemented that optimize material usage.	3 points, 9 points max	
601.3 Building Dimensions and Layouts		
1 - Floor area.	3	
2 - Wall area.	3	
3 - Roof area.	3	
4 - Cladding or siding area.	3	
5 - Penetrations or trim area.	1	
601.4 Framing and Structural Plans. Detailed framing or structural plans, material quantity lists and on-site cut lists for framing, structural materials, and sheathing materials are provided.	4	
601.5 Prefabricated Components. Precut or preassembled components, or panelized or precast assemblies are utilized for a minimum of 90 percent for the following system or building:		
1 - Floor System.	4	
2 - Wall System.	4	
3 - Roof System.	4	
4 - Modular construction for the entire building located above grade.	13	
5 - Manufactured home construction for the entire building located above grade.	13	
601.6 Stacked Stories. Stories above grade are stacked, such as in 1 1/2 story, 2 story, or greater structures. The area of the upper story is a minimum of 50 percent of the area of the story below, based on areas with a minimum ceiling height of 7 feet.	8 points max	

600 Resource Efficiency	Points Possible	Points Received
1 - First stacked story.	4	
2 - For each additional stacked story.	2	
601.7 Site-applied Finishing Materials. Building materials or assemblies are utilized that do not require additional site-applied material for finishing.	12 points max	
1 - 90% or more of the installed building material or assembly listed below.	5	
2 - 50% to less than 90% of the installed building material or assembly listed below.	2	
a. Pigmented, stamped, decorative, or final finish concrete or masonry		
b. Trim not requiring paint or stain		
c. Window, skylight, and door assemblies not requiring paint or stain on exterior and or interior surfaces		
d. Wall coverings or systems not requiring paint or stain or other type of finishing application		
601.8 Foundations. Foundations, such as frost-protected shallow foundations, pier and pad foundations, post foundations and other similar foundation types, are designed and constructed.	3	
601.9 Above Grade Wall Systems. One or more of the following above grade wall systems that provide sufficient structural and thermal characteristics are used for a minimum of 75 percent of the gross exterior wall area of the building:	4	
1 - Adobe.		
2 - Concrete and/or masonry.		
3 - Logs.		
4 - Rammed earth.		
602 Enhanced Durability and Reduced Maintenance		
602.1 Exterior Doors. Entries at exterior door assemblies, inclusive of side lights, are covered by one of the following methods to protect the building from the effects of precipitation and solar radiation.	5 points max	
a. Installing a porch roof or awning		
b. Extending the roof overhang		
c. Recessing the exterior door		
1 - Main entrance door.	3	
2 - Additional covered door assembly.	1	
602.2 Roof Overhangs. Roof overhangs, based on inches of rainfall in Table 602.2, are provided over a minimum of 90 percent of exterior walls to protect the building envelope.	4	

600 Resource Efficiency	Points Possible	Points Received
602.3 Foundation Drainage		
602.3.1 Where required by the ICC IRC or IBC for habitable and usable spaces below grade, exterior drain tile is installed.	**Mandatory**	
602.3.2 Interior and exterior foundation perimeter drains are installed and sloped to discharge to daylight, dry well, or sump pit.	4	
602.4 Drip Edge. Drip edge is installed at eaves and gable roof edges.	3	
602.5 Roof Water Discharge. A gutter and downspout system or splash blocks and effective grading are provided to carry water a minimum of 5 feet away from perimeter foundations walls.	4	
602.6 Finished Grade. Finish grade at all sides of a building is sloped to provided a minimum of 6 inches of fall within 10 feet of the edge of the building. Where lot lines, walls, slopes, or other physical barriers prohibit 6 inches of fall within 10 feet, the final grade is sloped away from the edge of the building at a minimum slope of 5 percent and the water is directed to drains or swales to ensure drainage away from the structure.	**Mandatory**	
602.7 Termite Barrier. Continuous physical foundation termite barrier used with or without low toxicity treatment is installed in geographical areas that have subterranean termite infestation potential determined in accordance with Figure 6 (3).	4	
602.8 Termite-Resistant Materials		
1 - In areas of slight to moderate termite infestation probability for the foundation, all structural walls, floors, concealed roof spaces not accessible for inspection, exterior decks, and exterior claddings within the first 2 feet above the top of the foundation.	2	
2 - In areas of moderate to heavy termite infestation probability for the foundation, all structural walls, floors, concealed roof spaces not accessible for inspection, exterior decks, and exterior claddings within the first 3 feet above the top of the foundation.	4	
3 - In areas of very heavy termite infestation probability for the foundation, all structural walls, floors, concealed roof spaces not accessible for inspection, exterior decks, and exterior claddings.	6	
602.9 Water-Resistive Barrier. Where required by the ICC IRC or IBC, a water-resistive barrier and/or drainage plane system is installed behind exterior veneer and/or siding.	**Mandatory**	
602.10 Ice Barrier. In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier is installed in accordance with the ICC IRC or IBC at roof eaves and extends at a minimum of 24 inches inside the exterior wall line of the building.	**Mandatory**	
602.11 Foundation Waterproofing. Enhanced foundation waterproofing is installed:	4	
1 - Rubberized coating, or		
2 - Drainage mat.		
602.12 Flashing. Flashing details are shown on plans and flashing is installed at all of the following locations, as applicable:	6	
1 - Around exterior fenestrations, skylights and doors.		
2 - Roof valleys.		
3 - Deck/balcony to building intersections.		

600 Resource Efficiency	Points Possible	Points Received
4 - At roof to wall intersections & roof to chimney intersections.		
5 - A drip cap is provided above the windows and doors that are not flashed or protected by covering in accordance with Section 602.1.		
602.13 Roof Surfaces. A minimum of 90 percent of roof surfaces are constructed of one or both of the following:	3	
1 - Products that are in accordance with the ENERGY STAR cool roof certification or equivalent.		
2 - A green (landscaped) roof system.		
602.14 Recycling. Occupant recycling is facilitated by one or more of the following methods:		
1 - A built-in collection space in each kitchen and an aggregation/pick-up space in a garage, covered outdoor space, or other area for recycling containers.	3	
2 - Compost facility provided on-site.	3	
603 Reused or Salvaged Materials		
603.1 Reuse of Existing Building. Existing buildings and structures are reused, modified, or deconstructed in lieu of demolition. (Points awarded for every 200 square feet)	1 point, 12 points max	
603.2 Salvaged Materials. Reclaimed and/or salvaged materials and components are used. The total material and labor cost of salvaged materials is equal to or exceeds 1 percent of the total construction cost.	3	
603.3 Scrap Materials. Facilitation for sorting and reuse of scrap building material, provide central storage or dedicated bins.	4	
604 Recycled-Content Building Materials		
604.1 Recycled Content. Building materials with recycled content are used for two minor and/or two major components of the building.		
1 - 25% to less than 50%.	1 per minor 2 per major	
2 - 50% to less that 75%.	2 per minor 4 per major	
3 - more than 75%.	3 per minor 6 per major	
605 Recycled Construction Waste		
605.1 Construction Waste Management Plan. A construction waste management plan is developed, posted at the jobsite, and implemented with a goal of recycling or salvaging a minimum of 50 percent (by weight) of construction and land-clearing waste.	6	
605.2 On-site Recycling. On-site recycling measures following applicable regulations and codes are implemented, such as the following:	7	
1 - Materials are ground or otherwise safely applied on-site as soil amendment or fill. A minimum of 50 percent (by weight) of construction and land-clearing waste is diverted from landfill.		
2 - Alternative compliance methods approved by the Adopting Entity.		

600 Resource Efficiency	Points Possible	Points Received
605.3 Recycled Construction Materials	6 points max	
1 - A minimum of two types of materials are recycled.	3	
2 - For each additional recycled material.	1	
606 Renewable Materials		
606.1 Biobased products. The following biobased products are used:	8 points max	
a. Certified solid wood in accordance with Section 606.2		
b. Engineered Wood		
c. Bamboo		
d. Cotton		
e. Cork		
f. Straw		
g. Natural fiber products made from crops (soy-based, corn-based)		
h. Products with the minimum biobased contents of the USDA 7 CFR Part 2902		
i. Other biobased materials with a minimum of 50 percent biobased content (by weight or volume)		
1 - Two types of biobased materials are used, each for more than .5 percent of the project's projected building material cost.	3	
2 - Two types of biobased materials are used, each for more than 1 percent of the project's projected building material cost.	6	
3 - For each additional biobased material used for more than .5 percent of the project's projected building material cost.	1 point, 2 points max	
606.2 Wood-Based Products. Wood or wood-based products are certified to the requirements of one of the following recognized product programs:		
a. American Forest Foundation's *American Tree Farm System* (ATFS)		
b. Canadian Standards Association's *Sustainable Forest Management System Standards* (CSA Z809)		
c. *Forest Stewardship Council* (FSC)		
d. *Program for Endorsement of Forest Certification Systems* (PEFC)		
e. *Sustainable Forestry Initiative Program* (SFI)		
f. Other product programs mutually recognized by PEFC		
1 - Where a minimum of two certified wood-based products are used for minor elements of the building, such as all trim, cabinetry or millwork.	3	

600 Resource Efficiency	Points Possible	Points Received
2 - Where a minimum of two certified wood-based products are used in major elements of the building, such as walls, floors, and roof.	4	
606.3 Manufacturing Energy. Materials are used for major components of the building that are manufactured using a minimum of 33 percent of the primary manufacturing process energy derived from renewable sources, combustible waste sources, or renewable energy credits (RECs). (2 points per material)	6 points max	
607 Resource-Efficient Materials		
607.1 Resource-Efficient Materials. Products containing fewer materials are used to achieve the same end-use requirements as conventional products, including but not limited to:	9 points max	
1 - Lighter, thinner brick with bed depth less than 3 inches and/or brick with coring of more than 25 percent.		
2 - Engineered wood or engineered steel products.		
3 - Roof or floor trusses.		
608 Indigenous Materials		
608.1 Indigenous Materials. Indigenous materials are used for major elements of the building.	10 points max	
1 - One type of material.	2	
2 - For each additional material.	2	
609 Life Cycle Analysis		
609.1 Life Cycle Analysis. A more environmentally preferable product or assembly is selected for an application based upon the use of a Life Cycle Assessment (LCA) tool compliant with ISO 14044 or other recognized standards that compare the environmental impact of building materials, assemblies, or the whole building.	15 points max	
1 - Per product/system comparison.	3	
2 - Whole building LCA analysis.	15	
610 Innovative Practices		
610.1 Manufacturer's environmental management system concepts Product manufacturer's operations and business practices include environmental management system concepts, and the production facility is ISO 14001 certified or equivalent. The aggregate value of building products from ISO 14001 certified or equivalent production facilities is 1 percent or more of the estimated total building materials cost. (1 point awarded per percent)	10 points max	
TOTAL POINTS FOR SECTION 600		

Chapter 7 – Energy Efficiency

700 Energy Efficiency	Points Possible	Points Received
701 Minimum Energy Efficiency Requirements	**Mandatory**	
701.1 Mandatory Requirements. The building shall comply with either Section 702 or Section 703. Items listed as mandatory in Section 701.4 apply to both the Performance and Prescriptive Paths.		
701.1.1 Minimum Performance Path Requirements. A building complying with Section 702 shall exceed the baseline minimum performance required by the ICC IECC by 15 percent, and shall include a minimum of two practices from Section 704.		
701.1.2 Minimum Prescriptive Path Requirements. A building complying with Section 703 shall obtain a minimum of 30 points from Section 703, and shall include a minimum of two practices from Section 704.		
701.1.3 Alternative Bronze Level Compliance. As an alternative, any building that qualifies as an ENERGY STAR qualified home or equivalent achieves the bronze level for Chapter 7.		
701.2 Emerald Level Points. The Performance Path shall be used to achieve the emerald level.		
701.3 Adopting Entity Review. A review by the Adopting Entity or designated third party shall be conducted to verify design and compliance with Chapter 7.		
701.4 Mandatory Practices	**Mandatory**	
701.4.1 HVAC Systems		
701.4.1.1 Space heating and cooling system/equipment is sized according to heating and cooling loads calculated using ACCA Manual J, or equivalent.	**Mandatory**	
701.4.1.2 Where installed as a primary heat source in the building, radiant or hydronic space heating system is designed using industry-approved guidelines (ACCA Manual J, GAMA H-22, or an accredited design professional's and manufacturer's recommendations).	**Mandatory**	
701.4.2 Duct Systems	**Mandatory**	
701.4.2.1 Ducts are sealed with tape complying with UL 181, mastic, gaskets, or an approved system as required by the ICC IRC, Section M1601.3.1, or ICC IMC, Section 603.9, to reduce leakage.	**Mandatory**	
701.4.2.2 Building cavities are not used as supply ducts.	**Mandatory**	
701.4.3 Insulation and Air Sealing	**Mandatory**	
701.4.3.1 General: Insulation and air sealing is in accordance with the following:	**Mandatory**	
1. Insulation. Insulation is installed in accordance with the manufacturer's instructions or local code, as applicable.	**Mandatory**	
2. Shafts (duct shaft, piping shaft/penetrations, flue shaft) Openings to unconditioned space are fully sealed with solid blocking or flashing and any remaining gaps are sealed with caulk or foam. Fire-rated collars and caulking are installed where required.	**Mandatory**	
701.4.3.2 Floors, Foundations and Crawlspaces		

700 Energy Efficiency	Points Possible	Points Received
1 - Floors. Including insulated floors above garages and cantilevered floors.	**Mandatory**	
a. Insulation is installed to maintain permanent contact with the underside of the subfloor decking, enveloping any attached ductwork within the thermal envelope without compression or air gaps in the insulation. This practice does not apply to ducts or other mechanical equipment that is adjacent to the underside of the subfloor	**Mandatory**	
b. Batt and loose-fill insulation is held in place by permanent attachments or systems in accordance with the manufacturer's instructions	**Mandatory**	
2 - Crawlspace. Where insulated, crawlspace wall insulation is permanently attached to the walls. Exposed earth in unvented crawlspaces is covered with continuous vapor retarder with overlapping joints that are taped or masticed.	**Mandatory**	
701.4.3.3 Walls		
1 - Windows and Doors. Caulking, gasketing, adhesive flashing tape, foam sealant, or weather-stripping is installed forming a complete air barrier.	**Mandatory**	
2 - Band joist and rim joist. Band and rim joists are insulated and air sealed.	**Mandatory**	
3 - Between foundation and sill plate bottom plate.	**Mandatory**	
a. Sill sealer or other material that will expand and contract is installed between foundation and sill plate	**Mandatory**	
b. Caulk or the equivalent is installed to seal the bottom plate of exterior walls	**Mandatory**	
4 - Skylights and Knee Walls. Skylight shafts and knee walls are insulated to the same level as the exterior walls.	**Mandatory**	
5 - Exterior Architectural Features. Code required building envelope insulation and air sealing are not disrupted at exterior architectural features such as stairs and decks.	**Mandatory**	
701.4.3.4 Ceilings and Attics		
1 - Attic Access (except unvented attics). Attic access, knee wall door, or drop-down stair is covered with insulation & gasketed. Knee wall door is an insulated unit or is covered with insulation.	**Mandatory**	
2 - Recessed Lighting. Recessed light fixtures that penetrate the thermal envelope are airtight, IC-rated, and sealed W/ gasket, caulk or foam.	**Mandatory**	
3 - Eave Vents. Where ceiling/attic assemblies or designs have eave vents, baffles or other means are implemented to minimize air movement into or under the insulation.	**Mandatory**	
701.4.4 Fenestration		
701.4.4.1 NFRC-certified U-Factor and SHGC windows, exterior doors, skylights, and tubular daylighting devices (TDDs) are in accordance with ENERGY STAR, or equivalent, or Table 701.4.4.1. Decorative fenestration elements with a minimum area of 15 square feet or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice. Climate Zone 4 to 8, U-Factor max. - .35 SHGC - Any	**Mandatory**	

700 Energy Efficiency	Points Possible	Points Received
702 Performance Path		
702.1 Point Allocation . Points from Section 702 (Performance Path) shall not be combined with points from Section 703 (Prescriptive Path).	**Mandatory**	
702.2 Energy Cost Performance Levels. Energy efficiency features are implemented to achieve energy cost performance that exceeds the ICC IECC by the following. A documented analysis using software in accordance with ICC IECC, Section 404, or ICC IECC Section 506.2 through 506.5 applied as defined in the ICC IECC, is required.		
1 - 15 percent.	30	
2 - 30 percent.	60	
3 - 50 percent.	100	
4 - 60 percent.	120	
703 Prescriptive Path		
703.1 Building Envelope		
703.1.1 Where the total building thermal envelope UA is less than required by ICC IECC, Section 402.1.4, the total building thermal envelope UA is in accordance with Table 703.1.1. Where insulation is used to achieve these percentages, a third-party grading of the installation as achieving grade 1 is required. A documented analysis is performed using RES-Check version 4.0.1 or later, or equivalent, based on a comparison to the ICC IECC, IRC, or IBC.		
10% UA Improvement	14	
20% UA Improvement	28	
703.1.2 The insulation installation is graded by a third party and is in accordance with Section 703.1.2.1, 703.1.2.2, 703.1.2.3 and or 703.1.2.4 as applicable.		
Insulation grade 1	15	
Insulation grade 2	10	
Insulation grade 3	0	
703.1.3 More than 75 percent of the above-grade exterior opaque wall area of the building is mass walls. Climate Zone 4 and Climate Zone 4 Marine.		
Mass Construction >3 inches to <6 inches	4	
Mass Construction >3 inches to <6 inches	3	

700 Energy Efficiency	Points Possible	Points Received
703.2 Insulation and Air Sealing		
703.2.1 Insulation and air sealing is installed in accordance with all the following, as applicable:		
1 - Third-party verification performed.	15	
2 - No third-party verification performed.	3	
703.2.1.1 General		
703.2.1.1.1 Air and Thermal Barriers		
1 - Thermal insulation is installed in substantial contact with interior and exterior air barrier to provide continuous alignment of the insulation with the air barrier. The following are deemed to be their own air barrier.		
a. Any spray or rigid foam insulation with an air permeance of 0.02 L/s-m^2 or less at 75 Pa		
b. ICFs, SIPS, and other wall systems that provide their own air barrier, except at interfaces with other materials or assemblies, or penetrations		
c. Spray foam that complies with all of the following:		
i. Continuously attached to the top, bottom and both sides of the cavity		
ii. Continuous in the cavity without any unrepaired breaks		
iii. Air impermeable		
d. Air impermeable insulation		
2 - Voids or areas of incomplete fill (less than 30 percent of full thickness) are 2 percent or less of the insulated area.		
3 - Insulation is in substantial contact with sheathing materials on one or more sides.		
4 - Any exterior rigid insulation is tightly fitted or interlocking at the joints.		
703.2.1.1.2 Plumbing and Wiring		
1 - At a minimum, insulation is placed between the outside (ceiling, wall, or floor) and the pipes.		
2 - Batt Insulation is split or cut to fit around wiring and plumbing.		
3 - Sprayed insulation is installed to encapsulated pipes where the pipe temperature is 180 degrees F (82.2 C) or less. Wiring is fastened in place to prevent displacement prior to spraying.		
703.2.1.1.3 Narrow Cavities are filled and batts are cut to fit.		
703.2.1.1.4 HVAC register boots that penetrate the building envelope are caulked or sealed to the subfloor or drywall.		
703.2.1.1.5 Masonry fireplaces are equipped with gasketed doors, outside combustion air, and a chimney top damper.		

700 Energy Efficiency	Points Possible	Points Received
703.2.1.2 Air Barriers are installed at any exterior edge of insulation at floors, foundations, and crawlspaces including insulated floors above garages and cantilevered floors.		
703.2.1.3 Walls		
1 - Exterior walls behind the tub-shower are insulated and include an interior and exterior air barrier.		
2 - Air-sealed-type electrical outlet boxes are installed or the air barrier extends completely behind the boxes. Insulation is placed between the sheathing and the rear of the electrical or phone boxes located on exterior walls. Electrical outlet boxes are covered prior to spraying insulation.		
3 - Duplex and Townhouse Construction: In the common walls between dwelling units (e.g., gypsum shaft wall), an air barrier is installed to seal the gap between the common wall and the structural framing.		
4 - Skylight shafts and knee walls are air sealed. Insulation on attic knee walls and skylight shafts are physically supported by stapling in place, netting, or using other mechanical attachment.		
5 - Fireplace walls: Air barrier that is aligned with insulation; any gaps are sealed with caulk or foam.		
703.2.1.4 Ceilings and Attics		
1 - At dropped ceilings and soffits, the air barrier is substantially aligned with insulation and any gaps are sealed with caulk, foam, or tape.		
2 - Access to vented attics, including knee wall doors and/or drop down stairs, is caulked, gasketed, or otherwise sealed.		
3 - An insulated cover is gasketed or sealed to the attic opening where a whole building or whole dwelling unit fan penetrates into the attic.		
703.3 Fenestration		
703.3.1 The NFCR-certified (or equivalent) U-Factor and SHGC for windows, exterior doors, skylights, and tubular daylighting devices (TDDs) are in accordance with Table 703.3.1 (a) or (b). Decorative fenestration elements with a maximum area of 15 square feet (1.39 m^2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice.	U factor .30, SHGC Any (5 pts) U factor .25, SHGC Any (10 pts)	
703.4 HVAC Equipment Efficiency		
703.4.1 Combination space heating and water heating system (combo system) is installed using either a coil from the water heater connected to an air handler to provide heat for the building or dwelling unit, or a space heating boiler using an indirect-fired water heater. Devices have a combined annual efficiency of 0.80.	4	
703.4.2 Furnace and/or boiler efficiency is in accordance with one of the following:		
1 - Gas and Propane Heaters.		
> 90% AFUE	8	
> 92% AFUE	9	
> 94% AFUE	10	

700 Energy Efficiency	Points Possible	Points Received
2 - Oil Furnace.		
> 83% AFUE	3	
> 90% AFUE	8	
3 - Gas Boiler.		
> 85% AFUE	4	
> 90% AFUE	8	
> 94% AFUE	10	
4 - Oil Boiler.		
> 85% AFUE	4	
> 90% AFUE	8	
703.4.3 Boiler is equipped with temperature reset control or burner delay control.	1	
703.4.4 Heat pump heating efficiency is in accordance with Table 703.4.4 Refrigerant charge is verified for compliance with manufacturer's instructions.		
8.2 HSPF (11.5 EER)	5	
9.0 HSPF (12.5 EER)	10	
703.4.5 Cooling efficiency is in accordance with one of the following. Refrigerant charge is verified for compliance with manufacturer's instructions.		
1 - Air conditioner and heat pump cooling:		
> 14 SEER (11.5 EER)	2	
> 15 SEER (12.5 EER)	3	
> 17 SEER (12.5 EER)	4	
> 19+ SEER (12.5 EER)	4	
2 - Water source and cooled air conditioners:		
> 15 EER, 4.0 COP	4	
703.4.6 Ground source heat pump is installed by a Certified Geothermal Service Contractor in accordance with one of the following ENERGY STAR levels:		
1 - Open Loop: > 16.2 EER/>3.6 COP.	20	

700 Energy Efficiency	Points Possible	Points Received
2 - Closed Loop: > 14.1 EER/>3.3 COP.	20	
3 - Direct Expansion: > 15.0 EER/ >3.5 COP.	20	
4 - Any type (open, closed, direct expansion): >24 EER/>4.3 COP.	30	
703.4.7 ENERGY STAR, or equivalent, ceiling fans are installed.	1	
703.4.8 Whole building or whole dwelling unit fan with insulated louvers and a sealed enclosure is installed.	2	
703.4.9 In multi-unit buildings, an advanced electric and fossil fuel submetering system is installed to monitor electricity and fossil fuel consumption for each unit. At a minimum, the information is available to the occupants on a monthly basis.		
1 - Install a device providing monthly consumption information.	1	
2 - Install a device that can provide near real-time energy consumption information.	4	
703.4.10 An ENERGY STAR, or equivalent, programmable thermostat is installed to control each heating and cooling zone.	1	
703.5 Water Heating Design, Equipment, and Installation		
703.5.1 Water Heater Energy Factor (EF) is equal to or greater than the following:		
1 - Gas Water Heating.		
30 to < 40 - .64 energy factor	1	
40 to < 50 - .62 energy factor	1	
50 to < 65 - .60 energy factor	1	
65 to < 75 .58 energy factor	1	
>75 - .56 energy factor	1	
Any - .80 energy factor	10	
Any - 82-86% Thermal Efficiency	1	
Any > 86% Thermal Efficiency	10	
2 - Electric Water Heating.		
Any size and Any Energy Factor	1	
3 - Oil Water Heating.	1	
30 to < 50 - .59 Energy Factor	1	
> 50 - .55 Energy Factor	1	

700 Energy Efficiency	Points Possible	Points Received
4 - Heat Pump Water Heating.		
Heat Pump 1.5 energy factor	7	
Heat Pump 2.0 energy factor	10	
703.5.2 Desuperheater is installed by a qualified installer or is pre-installed in the factory.	5	
703.5.3 Drain-water heat recovery system is installed in multi-family units. (Points per building)	2	
703.5.4 Insulating hot water pipes.		
703.5.4.1 Hot Water lines are insulated to a minimum of R-4.	1	
703.5.4.2 Boiler supply piping is insulated in unconditioned spaces.	1	
703.5.5 Indirect-fired water heater storage tanks heated from boiler systems are installed.	1	
704 Additional Practices		
704.1 Application of additional practice points. Points from Section 704 can be added to points earned in section 702 (Performance Path), Section 703 (Prescriptive Path), or Section 701.1.3 (alternative bronze level compliance).		
704.2 Lighting and Appliances		
704.2.1 Hard-wired lighting is in accordance with one of the following:		
1 - A minimum of 50 percent of the total hard-wired lighting fixtures, or the bulbs in those fixtures, qualify as ENERGY STAR or equivalent.	4	
2 - A minimum of 50 percent of the total hard-wired lighting fixture qualify as ENERGY STAR or equivalent.	8	
3 - A minimum of 80 percent of the exterior lighting wattage has an efficiency of 40 lumens per watt minimum or be a solar-powered light fixture.		
704.2.2 The number of recessed light fixtures that penetrate the thermal envelope are less than 1 per 400 square feet of total conditioned floor area and are in accordance with Section 701.4.3.4 (2).	2	
704.2.3 Occupancy sensors are installed on indoor lights, and photo or motion sensors are installed on outdoor lights to control lighting.		
1 - 25 percent of lighting.	2	
2 - 50 percent of lighting.	4	
704.2.4 Tubular daylighting device (TDD) or a skylight with sealed, insulated, low-E glass is installed in rooms without windows. Points awarded per building.	2	
704.2.5 ENERGY STAR or equivalent appliances are installed:		
1 - Refrigerator.	5	
2 - Dishwasher.	2	
3 - Washing machine.	4	

700 Energy Efficiency	Points Possible	Points Received
704.2.6 Induction cooktop is installed.	1	
704.2.7 Occupancy sensors are installed for a minimum of 80 percent of hard wired lighting outlets.	1	
704.3 Renewable Energy and Solar Heating and Cooling		
704.3.1 Solar space heating and cooling.		
704.3.1.1 Sun-tempered design. Building orientation, sizing of glazing, and design of overhangs are in accordance with all of the following:	5	
1 - The long side (or one side if of equal length) of the building faces within 20 degrees of true south.		
2 - Vertical glazing area is between 5 and 7 percent of the gross conditioned floor area on the south face.		
3 - Vertical glazing area is less than 2 percent of the gross conditioned floor area on the west face, and glazing is ENERGY STAR compliant or equivalent.		
4 - Vertical glazing area is less than 4 percent of the gross conditioned floor area on the east face, and glazing is ENERGY STAR compliant or equivalent.		
5 - Vertical glazing area is less than 8 percent of the gross conditioned floor area on the north face, and glazing is ENERGY STAR compliant or equivalent.		
6 - Skylights, where installed, are in accordance with the following:		
a. Shades and insulated wells are used, and all glazing is ENERGY STAR compliant or equivalent		
b. Horizontal skylights are less than 0.5 percent of finished ceiling area		
c. Sloped skylights on slopes facing within 45 degrees of true south, east or west are less than 1.5 percent of the finished ceiling area		
7 - Overhangs or adjustable canopies or awnings or trellises provide shading on south-facing glass for the appropriate climate zone in accordance with Table 704.3.1.1.		
8 - The south face windows have a SHGC of 0.40 or higher.		
9 - Return air or transfer grilles/ducts are in accordance with Section 704.4.5.		
704.3.1.2 Automated Solar protection is installed to provide shading for windows.	1	
704.3.1.3 Passive cooling design features are in accordance with three or more of the following:		
Points for three items:	3	
Points for one additional item:	1	
1 - Exterior shading is provided on east and west windows using one or a combination of the following:		
a. Vine-covered trellises with the vegetation separated a minimum of 1 foot from face of building		
b. Moveable awnings or louvers		
c. Covered porches		

700 Energy Efficiency	Points Possible	Points Received
d. Attached or detached conditioned/unconditioned enclosed space that provides full shade of east and west windows		
2 - Overhangs are installed to provide shading on south-facing glazing in accordance with Section 704.3.1.1(7). Points not awarded if points are taken under Section 704.3.1.1.		
3 - Windows and/or venting skylights are located to facilitate cross ventilation.		
4 - Solar reflective roof or radiant barrier is installed in climate zones 1,2 or 3 and roof material achieves a 3-year aged criteria of 0.50.		
5 - Internal exposed thermal mass is a minimum of three inches in thickness. Thermal mass consist of concrete, brick, and/or tile that are fully adhered to a masonry base or other masonry material and is in accordance with one or a combination of the following:		
a. A minimum of 1 square foot of exposed thermal mass of floor per 3 square feet of gross finished floor area		
b. A minimum of 3 square feet of exposed thermal mass in interior walls or elements per square foot of gross finished floor area		
6 - Roofing material is installed with a minimum 0.75 inch continuous air space offset from the roof deck from eave to ridge.		
704.3.1.4 Passive solar heating design. In addition to the sun-tempered design features in Section 704.3.1.1, all of the following are implemented:	4	
1 - Additional glazing, no greater than 12 percent, is permitted on the south wall. This additional glazing in is accordance with the requirements of Section 704.3.1.1.		
2 - Additional thermal mass for any room with south-facing glazing of more than 7 percent of the finished floor area is provided in accordance with the following:		
a. Thermal mass is solid and a minimum of 3 inches in thickness. Where two thermal mass materials are layered together (e.g. ceramic tile on concrete base) to achieve the appropriate thickness, they are fully adhered to (touching) each other		
b. Thermal mass directly exposed to sunlight is provided in accordance with the following minimum ratios:		
i. Above latitude 35 degrees: 5 square feet of thermal mass for every 1 square foot of south-facing glazing		
ii. Latitude 30 degrees to 35 degrees: 5.5 square feet of the thermal mass for every 1 square foot of south-facing glazing		
iii. Latitude 25 degrees to 30 degrees: 6 square feet of thermal mass for every 1 square foot of south-facing glazing		
c. Thermal mass not directly exposed to sunlight is permitted to be used to achieve thermal mass requirements of Section 704.3.1.4 (2) based on a ratio of 40 square feet of thermal mass for every 1 square foot of south-facing glazing		
3 - In addition to return air or transfer grilles/ducts required by Section 704.3.1.1, provisions for forced airflow to adjoining areas are implemented as needed.		
704.3.2 Solar Water Heating		
704.3.2.1 Solar Water Heater. SRCC (Solar Rating & Certification Corporation) OG 300 rated, or equivalent, solar domestic water heating system is installed. Solar Energy Factor (SEF as defined by SRCC) is in accordance with Table 704.3.2.1.		
SEF - Electric Tank 1.30 - 1.50	8	
SEF - Electric Tank 1.51 - 1.80	11	

700 Energy Efficiency	Points Possible	Points Received
SEF - Electric Tank 1.81 - 2.30	14	
SEF - Electric Tank 2.31 - 3.00	17	
SEF - Electric Tank >3.01	20	
SEF - Gas Tank .085 - 1.00	8	
SEF - Gas Tank 1.01 - 1.20	11	
SEF - Gas Tank 1.21 - 1.50	14	
SEF - Gas Tank 1.51 - 2.00	17	
SEF - Gas Tank > 2.01	20	
704.3.3 Additional Renewable Energy Options		
704.3.3.1 Photovoltaic panels are installed on the property.	1	
704.3.3.2 Other on-site renewable energy source is installed (e.g. wind energy, on-site micro-hydro power, active solar space heating systems).	0.5	
704.4 Ducts		
704.4.1 Duct system is sized, designed, and installed in accordance with ACCA Manual D or equivalent.	5	
704.4.2 Space heating is provided by a system that does not include air ducts.	15	
704.4.3 Space cooling is provided by a system that does not include air ducts.	15	
704.4.4 Ductwork is in accordance with all of the following:	12	
1 - Building Cavities are not used as return ductwork.		
2 - Heating and cooling ducts and mechanical equipment are installed within the conditioned building space.		
3 - Ductwork is not installed in exterior walls.		
704.4.5 Return ducts or transfer grilles are installed in every room with a door. This practice does not apply to bathrooms, kitchens, closets, pantries, and laundry rooms.	5	
704.5 HVAC Design and Installation		
704.5.1 ACCA Manual S or equivalent is used to select heating and/or cooling equipment.	1	
704.5.2 HVAC contractor and service technician are certified by a nationally or regionally recognized program (e.g. North American Technician Excellence, Inc. (NATE), Building Performance Institute (BPI), Radiant Panel Association, or manufacturers' training program).	1	
704.5.3 Performance of the heating and/or cooling system is verified by the HVAC contractor in accordance with all the following:	3	

700 Energy Efficiency	Points Possible	Points Received
1 - Start-up procedure is performed in accordance with the manufacturer's instructions.		
2 - Refrigerant charge is verified by super-heat and/or sub-cooling method.		
3 - Burner is set to fire at input level listed on nameplate.		
4 - Air handler setting/fan speed is set in accordance with manufacturer's instructions.		
5 - Total airflow is within 10 percent of design flow.		
6 - Total external system static does not exceed equipment capability at rated airflow.		
704.5.4 HVAC equipment operates using an alternative refrigerant containing no HCFCs (hydrochlorofluorocarbons).	1	
704.5.5 Manufacturer's label or printed specifications for sealed air handler (except furnaces) indicates the leakage is less than or equal to 2 percent of design airflow at a pressure of 1 inch w.g. Air handlers are tested with inlets, outlets and condensate drain ports sealed, and filter box in place.	4	
704.6. Installation and Performance Verification.		
704.6.1 Third-party on-site inspection is conducted to verify compliance with all of the following, as applicable. Minimum of two inspections are performed. One inspection after insulation is installed and prior to being covered, and another inspection upon completion of the project. Where multiple buildings or dwelling units of the same model are built by the same builder, a representative sample inspection of a minimum of 15 percent of the buildings or dwelling units is permitted.	5	
1 - Ducts are installed in accordance with the ICC IRC or IMC and ducts are sealed.		
2 - Building envelope air sealing is installed.		
3 - Insulation is installed in accordance with Section 703.1.2.		
4 - Windows, skylights, and doors are flashed, caulked and sealed in accordance with manufacturer's recommendations and in accordance with Section 703.2.1.		
704.6.2 Third-party testing is conducted to verify performance.		
704.6.2.1 Building envelope leakage rate is demonstrated by blower door test. In addition to the test, the following practices are required:		
1 - Whole building ventilation is provided in accordance with Section 902.2.		
2 - Fossil fuel furnace and water heater is sealed combustion or power vented in accordance with Section 901.1.		
3 - Fireplaces and fuel-burning appliances are in accordance with Section 901.2.		
4 - The maximum leakage rate is in accordance with:		
a. 5 ACH50	3	
b. 4 ACH50	6	

700 Energy Efficiency	Points Possible	Points Received
c. 3 ACH50	9	
d. 2 ACH50	12	
e. 1 ACH50	15	
704.6.2.2 The entire central HVAC duct system, including air handlers and register boots, is tested for leakage at a pressure differential of 0.1 inches w.g. The maximum leakage as a percent of the system design flow rate is in accordance with the following:		
1 - 6 percent for ductwork entirely outside the building's thermal envelope.	15	
2 - 6 percent for ductwork entirely inside the building's thermal envelope.	5	
3 - 6 percent for ductwork both inside and outside the building's thermal envelope.	15	
704.6.2.3 Balanced HVAC airflows are demonstrated by flow hood or other acceptable flow measurement tool. Test results are in accordance with both of the following:	8	
1 - Measured flow at each supply and return register is within 25 percent of design flow.		
2 - Total airflow is within 10 percent of design flow.		
705 Innovative Practices		
705.1 Energy Consumption Control. A whole building or whole dwelling unit device is installed that controls or monitors energy consumption.	7 points max	
1 - Programmable communicating thermostat.	2	
2 - Energy-monitoring device.	4	
3 - Energy Management Control System.	7	
705.2 Renewable Energy Service Plan is provided as follows:		
1 - Builder selects a renewable energy service plan provided by the local electrical utility for interim (temporary) electric service. The builder's local administrative office has renewable energy service.	2	
2 - The buyer of the building selects a renewable energy service plan provided by the utility prior to occupancy of the building.	5	
TOTAL POINTS FOR SECTION 700		

Chapter 8 – Water Efficiency

800 Water Efficiency	Points Possible	Points Received
801 Indoor and Outdoor Water Use		
801.1 Indoor Hot Water Usage		
801.1.1 Indoor hot water usage is reduced by one of the following practices:		
1 - All hot water piping that runs to the plumbing fixtures in both the kitchen and bathrooms is 40 feet or less in length from the water heater and is sized in accordance with the code for the specified application.	2	
2 - All hot water piping that runs to the plumbing fixtures in both the kitchen and bathrooms is 30 feet or less from the water heater and is sized in accordance with the code for the specified application.	3	
3 - One of the following piping system designs is implemented:		
a. Use of structured-type plumbing with demand-controlled hot water loops, in which the volume of water contained in the pipe and fixture fittings downstream of the recirculating trunk line is a maximum of 4 cups, or	6	
b. Engineered parallel piping system in which the hot water line distance from the water heater to the parallel piping system is less than 15 feet and the parallel piping to the fixture fittings contains a maximum of 8 cups, or	6	
c. Central core plumbing system with all plumbing fixture fittings located such that the volume of water contained in each pipe run between the water heater and fixture fitting is a maximum of 6 cups	8	
4 - Pipe runs exceeding 40 feet from the water heater to fixture locations are aided by one of the following:	1	
a. Tankless water heater is installed at point of use and is served only by cold water or a solar assisted system		
b. On-demand hot water recirculation system is installed		
801.2 Water-conserving Appliances. ENERGY STAR or equivalent water-conserving appliances are installed.		
1 - Dishwasher.	2	
2 - Washing machine.	8	
3 - Washing machine with a water factor of 6.0 or less.	12	
801.3 Food Waste Disposers. A minimum of one food waste disposer is installed at the primary kitchen sink.	1	
801.4 Showerheads		
1 - The total showerhead flow rate at any point in time in each shower compartment is 1.6 to less than 2.5 gpm. The total flow rate is tested at 80 psi in accordance with ASME A112.18.1. Showers are equipped with an automatic compensating valve that complies with ASSE 1016 or ASME A 112.18.1 and specifically designed to provide thermal shock and scald protection at the flow rate of the showerhead. (Points awarded per shower head.)	1 point, 3 points max	

800 Water Efficiency	Points Possible	Points Received
2. - All showerheads meet the requirements of 801.4(1). In addition, all showerheads are in compliance with either 801.4(2)(a) or 801.4(2)(b).		
a. 2.0 to less than 2.5 gpm	1 additional point	
b. 1.6 to less than 2.0 gpm	2 additional points	
801.5 Faucets		
801.5.1 Water-efficient lavatory faucets with 1.5 gpm or less maximum flow rate when tested at 60 psi in accordance with ASME A112.18.1 are installed.		
1 - A bathroom, points awarded for each bathroom.	1 point, 3 points max	
2 - All lavatory faucets.	2 additional points	
801.5.2 Self-closing value, motion sensor, metering, or pedal-activated faucet is installed to enable intermittent on/off operation. (Points awarded per fixture.)	1 point, 3 points max	
801.6 Water Closets and Urinals. Water closets and urinals are in accordance with the following: (For water closets, points awarded for either Section 801.6 or 802.2, not both.)		
1 - Gold and Emerald levels: All water closets and urinals are in accordance with either section 801.6 or 802.2.	**Mandatory**	
2 - A water closet is installed with an effective flush volume of 1.28 gallons or less when tested in accordance with ASME A112.19.2 (all water closets) and ASME A112.19.14 (all dual flush water closets), and is in accordance with EPA WaterSense Tank-Type High Efficiency Toilet. (Points awarded per fixture.)	6 points, 18 points max	
3 - A urinal is installed with a flush volume of 0.5 gallons or less when tested in accordance with ASME A112.19.2. (Points awarded per fixture.)	4 points, 4 points max	
4 - All water closets and all urinals are in accordance with Section 801.6(2) or Section 801.6(3), as applicable.	6 additional points	
801.7 Irrigation Systems		
801.7.1 A low-volume irrigation system is installed for each landscape type utilized: (Points awarded once for each type of irrigation system installed.)	10 points max	
1 - High-distribution uniformity (DU) rotating spray heads.	2	
2 - Drip Irrigation.	4	
3 - Bubblers.	4	
4 - Drip Emitters.	4	
5 - Soaker Hose.	4	
6 - Subsurface Irrigation.	6	
801.7.2 Irrigation system is in accordance with both of the following:	3	
1 - Designed by a professional in accordance with EPA WaterSense requirements, or equivalent.		

800 Water Efficiency	Points Possible	Points Received
2 - Installed in accordance with EPA WaterSense program, or equivalent.		
801.7.3 Irrigation system is zoned separately for turf and bedding areas.	2	
801.7.4 The irrigation system is controlled by a smart controller.		
1 - Evapotranspiration (ET) based irrigation controller with a rain sensor.	4	
2 - Soil moisture sensor based irrigation controller.	4	
3 - No irrigation is installed and a landscape plan is developed in accordance with Section 503.5 as applicable.	15	
801.8 Rainwater Collection and Distribution.		
1 - Rainwater is collected and used.	6	
2 - Rainwater is distributed using a renewable energy source or gravity.	2	
801.9 Water Filters. Water filter is installed to improve water quality for the whole building or whole dwelling unit.	1	
802 Innovative Practices		
802.1 Gray Water. Gray water, as specified in ICC IRC, Appendix O, is separated and reused, as permitted by local building code. (Points awarded for either Section 802.1(1) or 802.1(2), not both.)		
1 - Each water closet flushed by reclaimed or recycled water. (Points awarded per fixture.)	4	
2 - Irrigation from reclaimed or recycled water on-site.	10	
802.2 Composting or waterless toilets and/or urinals. Composting or waterless toilets and/or urinals are in accordance with the following: (For water closets, points awarded for either section 802.2 or 801.6, not both.)	24 points max	
1 - Gold and Emerald levels: All water closets and urinals are in accordance with either section 802.2 or Section 801.6.	**Mandatory**	
2 - Composting or waterless toilet and/or urinal is installed. (Points awarded per fixture.)	8	
3 - All toilets and urinals are in accordance with Section 802.2(2).	8 additional points	
802.3 Automatic Shutoff Water Devices. One of the following automatic shutoff water supply devices is installed. Where a fire sprinkler system is present, installer is to ensure the device will not interfere with the operation of the fire sprinkler system.	2	
1 - Excess water flow shutoff.		
2 - Leak detection system.		
TOTAL POINTS FOR SECTION 800		

Chapter 9 – Indoor Environmental Quality

900 Indoor Environmental Quality	Points Possible	Points Received
901 Pollutant Source Control		
901.1 Space and Water Heating Options		
901.1.1 Natural draft space heating or water heating equipment is not located in conditioned spaces, including conditioned crawlspaces. Natural draft equipment is permitted to be installed within the conditioned spaces if located in a mechanical room that has an outdoor air source, and is otherwise sealed and insulated to separate it from the conditioned spaces.	5	
901.1.2 Air handling equipment or return ducts are not located in the garage, unless placed in isolated, air sealed mechanical rooms with an outside air source.	5	
901.1.3 The following combustion space heating and water heating equipment is installed within conditioned space:		
1 - Direct vent furnace or boiler.	5	
2 - Water heater.		
a. Power vent water heater	3	
b. Direct vent water heater	5	
901.1.4 The following electric equipment is installed:		
1 - Heat Pump air handler in unconditioned space.	2	
2 - Heat Pump air handler in conditioned space.	5	
901.2 Fireplaces and Fuel-burning Appliances. Fireplaces and fuel burning appliances (except cooking appliances, clothes dryers, water heaters, and furnaces) located in conditioned space are in accordance with the following: (Section 901.2.1(2)(a) is not mandatory.)	**Mandatory**	
901.2.1 Fireplaces and natural draft fuel-burning appliances are code compliant, vented to the outdoors, and have adequate combustion and ventilation air provided to minimize spillage or back-drafting, in accordance with the following, as applicable.		
1 - Natural gas and propane fireplaces that are power vented or direct vented, are equipped with permanently fixed glass fronts or gasketed doors, and comply with CSA Z21.88a/csa 2.33a or CSA Z21.50/CSA2.22.	7	
2 - Solid fuel-burning appliances are in accordance with the following requirements:		
a. Wood-burning fireplaces are equipped with gasketed doors designed to operate with the doors closed, outside combustion air, and a means is provided for sealing the flue to minimize interior air (heat) loss when not in operation	4	
b. Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 and are EPA certified	6	
c. Wood stove and fireplace inserts, as defined in UL 1482 Section 3.8, are in accordance with the certification requirements of UL 1482 and are in accordance with the emission requirements of the EPA Certification and the State of Washington WAC 173-433-100(3)	6	

900 Indoor Environmental Quality	Points Possible	Points Received
d. Pellet (biomass) stoves and furnaces are in accordance with the requirements of ASTM E1509 or are EPA certified	6	
e. Masonry heaters are in accordance with the definitions in ASTM E1602 and ICC IBC, Section 2112.1	6	
901.2.2 Fireplaces, woodstoves, pellet stoves, or masonry heaters are not installed.	7	
901.3 Garages. Garages are in accordance with the following:		
1 - Attached garage.		
a. Where installed in the common wall between the attached garage and conditioned space, the door is tightly sealed and gasketed	**2 Mandatory**	
b. A continuous air barrier is provided between walls and ceilings separating the garage space from the conditioned living spaces	**2 Mandatory**	
c. For one- and two-family dwelling units, a 100 cfm or greater ducted, or 70 cfm or greater unducted wall exhaust fan is installed and vented to the outdoors, designed and installed for continuous operation, or has controls that activate operation for a minimum of 1 hour when either human passage door or roll-up automatic doors are operated. For ducted exhaust fans, the fan airflow rating and duct sizing are in accordance with Appendix A	4	
2 - A carport is installed, the garage is detached from the building, or no garage is installed.	10	
901.4 Wood Materials. A minimum of 85 percent of material within a product group (i.e. wood structural panels, countertops, composite trim/doors, custom woodwork, and/or component closet shelving) is manufactured in accordance with the following:	10 points max	
1 - Structural plywood used for floor, wall, and/or roof sheathing is compliant with DOC PS 1 and/or DOC PS 2. OSB used for floor, wall, and/or roof sheathing is compliant with DOC PS 2. The panels are made with moisture-resistant adhesives. The trademark indicates these adhesives as follows: Exposure 1 or Exterior for plywood, and Exposure 1 for OSB.	**Mandatory**	
2 - Particleboard and MDF (medium density fiberboard) is manufactured and labeled in accordance with CPA A208.1 and CPA A208.2, respectively. (Points awarded per product group.)	2	
3 - Hardwood plywood in accordance with HPVA HP-1 and HUD Title 24, Part 3280. (Points awarded per product group.)	2	
4 - Particleboard, MDF, or hardwood plywood is in accordance with SPA 2. (Points awarded per product group.)	3	
5 - Composite wood or agrifiber panel products contain no added urea-formaldehyde or are in accordance with the CARB *Composite Wood Air Toxic Contaminant Measure Standard*. (Points awarded per product group.)	4	
6 - Non-emitting products. (Points awarded per product group.)	4	
901.5 Carpets. Carpets are in accordance with the following:		
1 - Wall to wall carpeting is not installed adjacent to water closets and bathing fixtures.	**Mandatory**	
2 - A minimum of 85 percent of installed carpet area, carpet cushion (padding), and carpet adhesives are in accordance with the emission levels of CDPH 01350, as certified by a third party program, such as the Carpet and Rug Institute's (CRI) *Green Label Plus Indoor Air Quality Program*.		

900 Indoor Environmental Quality	Points Possible	Points Received
a. Carpet	6	
b. Carpet cushion	2	
c. Carpet adhesives	2	
901.6 Hard-surface Flooring. A minimum of 85 percent of installed hard-surface flooring is in accordance with the emission concentration limits of CDPH 01350 (using the office scenario), as certified by a third-party program, such as the Resilient floor Covering Institute's *FloorScore Indoor Air Certification Program* or the GREENGUARD Environmental Institute's *Children and Schools Certification Program*.	6	
901.7 Wall Coverings. A minimum of 85 percent of wall coverings are in accordance with the emission concentration limits of CDPH 01350, as certified by a third-party program, such as the Scientific Certification Systems (SCS) *Indoor Advantage Gold Program* or the GREENGUARD Environmental Institute's *Children and Schools Certification Program*.	4	
901.8 Architectural Coatings. A minimum of 85 percent of the architectural coatings are in accordance with either Section 901.8.1 or Section 901.8.2, not both:		
901.8.1 Site-applied interior products are in accordance with one or more of the following standards:	5	
1 - Zero VOC as determined by EPA Method 24 (VOC content below the detection limit for the method).		
2 - CARB *Suggested Control Measure For Architectural Coatings*.		
3 - GS-11.		
4 - VOC limits in accordance with:		
a. 50 grams/liter flat		
b. 100 grams/liter non flat		
c. 350 grams/liter clear wood varnish		
d. 550 grams/liter clear wood lacquer		
901.8.2 Site-applied interior products are in accordance with the emission levels of CDPH 01350, as certified by a third-party program such as the GREENGUARD Environmental Institute's *Children and Schools Certification Program* or the Scientific Certification Systems *Indoor Advantage Gold Program*.	8	
901.9 Adhesives and Sealants. A minimum of 85 percent of site-applied adhesives and sealants are in accordance with Section 901.9.1 and/or Section 901.9.2.		
901.9.1 Exterior low-VOC adhesives and sealants: A minimum of 85 percent of site-applied products used for the installation of subfloors and on the exterior of the project are in accordance with one of the following:	5	
1 - The California Air Resources Board consumer products regulation as follows:		
a. Construction Adhesives: VOC content not to exceed 7 percent by weight or 75 grams/liter, whichever is greater		

900 Indoor Environmental Quality	Points Possible	Points Received
b. The VOC content of reactive sealants (i.e., silicones, polyurethanes, and hybrids, such as MS Polymer and silylated polyurethane resin or SPUR) not to exceed 4 percent by weight or 50 grams/liter, whichever is greater		
c. The VOC content of all other caulks and sealants not to exceed 2 percent by weight or 30 grams/liter, whichever is greater		
d. The VOC Content of contact adhesives not to exceed 55 percent by weight or 480 grams/liter, whichever is greater.		
2 - GS-36.		
901.9.2 Interior low-VOC adhesives and sealants. A minimum of 85 percent of the site-applied products used within the interior of the building are in accordance with one of the following, as applicable.	5	
1 - CDPH 01350, as certified by a third-party program, such as the GREENGUARD Environmental Institute's *Children and Schools Certification Program* or the Scientific Certifications Systems *Indoor Advantage Gold Program*.		
2 - GS-36.		
901.10 Cabinets. A minimum of 85 percent of kitchen and bath vanity cabinets are in accordance with one of the following:		
1 - Kitchen and bath vanity cabinets in accordance with KCMA ESP 01, or equivalent, are installed.	2	
2 - Kitchen and bath vanity cabinets in accordance with CARB *Composite Wood Air Toxic Contaminant Measure Standard* are installed.	3	
3 - Kitchen and bath vanity cabinets are installed that contain no added urea formaldehyde or are in accordance with GGPS.EC.010.R0, ASTM D 6670, or equivalent.	5	
901.11 Insulation. Insulation is in accordance with the following:		
1 - Formaldehyde emissions of wall, ceiling and floor insulation materials are in accordance with the emission levels of CDPH 01350, as certified by a third-party program, such as the GREENGUARD Environmental Institute's *Children and Schools Certification Program* or the Scientific Certifications Systems *Indoor Advantage Gold Program*.	4	
2 - Formaldehyde emissions of duct insulation materials are in accordance with the emission levels of CDPH 01350, as certified by a third-party program, such as the GREENGUARD Environmental Institute's *Children and Schools Certification Program* or the Scientific Certifications Systems *Indoor Advantage Gold Program*.	1	
901.12 Carbon Monoxide (CO) Alarms	3	
A carbon monoxide (CO) alarm is installed in a central location outside of each separate sleeping area in the immediate vicinity of the bedrooms. The CO alarm is located in accordance with NFPA 720 and is hard-wired with a battery back-up. The alarm device is certified by a third-party for conformance to either CSA 6.19 or UL 2034.		
901.13 Building Entrance Pollutants Control. Pollutants are controlled at all main building entrances by one of the following methods:		
1 - Exterior grilles or mats are installed in a fixed manner and may be removable for cleaning.	1	
2 - Interior grilles or mats are installed in a fixed manner and may be removable for cleaning.	1	
901.14 Non-smoking Areas. All interior common areas of a multi-unit building are designated as non-smoking areas with posted signage.	1	

900 Indoor Environmental Quality	Points Possible	Points Received
902 Pollutant Control		
902.0 Intent. Pollutants generated in the building are controlled.		
902.1.1 Spot ventilation is in accordance with the following:		
1 - Bathrooms are vented to the outdoors. The minimum ventilation rate is 50 cfm for intermittent operation or 20 cfm for continuous operation in bathrooms.	**Mandatory**	
2 - Clothes dryers are vented to the outdoors.	**Mandatory**	
3 - Kitchen exhaust units and/or range hoods are ducted to the outdoors and have a minimum ventilation rate of 100 cfm for intermittent operation or 25 cfm for continuous operation.	8	
902.1.2 Bathroom and/or laundry exhaust fan is provided with an automatic timer and/or humidistat:	9 points max	
1 - For first device.	5	
2 - For each additional device.	2	
902.1.3 Kitchen range, bathroom, and laundry exhaust are verified to specification. Ventilation airflow at the point of exhaust is tested to a minimum of 100 cfm intermittent or 25 cfm continuous for kitchens, and 50 cfm intermittent or 20 cfm continuous for bathrooms and/or laundry.	8	
902.1.4 Exhaust fans are ENERGY STAR, as applicable.	6 points max	
1 - ENERGY STAR, or equivalent, fans.	2	
2 - ENERGY STAR, or equivalent, fans operating at or below 1 sone.	3	
902.2 Building Ventilation Systems		
902.2.1 One of the following whole building ventilation systems is implemented and is in accordance with the specifications of Appendix B.		
1 - Exhaust or supply fan ready for continuous operation and with appropriately labeled controls.	8	
2 - Balanced exhaust and supply fans with supply intakes located in accordance with the manufacturer's guidelines so as to not introduce polluted air back into the building.	10	
3 - Heat-recovery ventilator.	15	
4 - Energy-recovery ventilator.	17	
902.2.2 Ventilation airflow is tested to achieve the design fan airflow at point of exhaust in accordance with Section 902.2.1.	8	
902.2.3 MERV filters 8 or greater are installed on central air systems. Designer or installer is to verify that the HVAC equipment is able to accommodate the greater pressure drop of MERV 8 filters.	3	
902.3 Radon Control. Radon control measures are in accordance with ICC IRC Appendix F.		
1 - Building located in Zone 1.	**Mandatory**	

900 Indoor Environmental Quality	Points Possible	Points Received
a. A passive radon system is installed	10	
b. An active radon system is installed	15	
902.4 HVAC System Protection. One of the following HVAC system protection measures is performed.	3	
1 - HVAC supply registers (boots), return grilles, and rough-ins are covered during construction activities to prevent dust and other pollutants from entering the system.		
2 - Prior to owner occupancy, HVAC supply registers (boots), return grilles, and duct terminations are inspected and vacuumed. In addition, the coils are inspected and cleaned and the filter is replaced if necessary.		
902.5 Central Vacuum Systems. Central vacuum system is installed and vented to the outside.	5	
902.6 Living Space Contaminates. The living space is sealed to prevent unwanted contaminants.		
1 - Attic access, knee wall door, or drop down stair is caulked, gasketed, or otherwise sealed.	2	
2 - All penetrations are sealed in the following areas: attic/ceiling, wall, and floors.	2	
903 Moisture Management: Vapor, Rainwater, Plumbing , HVAC		
903.0 Intent. Moisture and moisture effects are controlled.		
903.1 Tile backing materials. Tile backing materials installed under tiled surfaces in wet areas are accordance with ASTM C1178, C1278, C1288, or C1325.	**Mandatory**	
903.2 Capillary Breaks		
903.2.1 A capillary break and vapor retarder are installed at all concrete slabs in accordance with Sections 903.2.1(1) or 903.2.1(2), as modified by Section 903.2.1(3):	**Mandatory**	
1 - A minimum 4-inch-thick bed of 1/2-inch diameter or greater clean aggregate, covered with polyethylene or polystyrene sheeting in direct contact with the concrete slab, with the sheeting joints lapped in accordance with Section 903.3.		
2 - A minimum 4-inch-thick uniform layer of sand, overlain with a layer or strips of geotextile drainage matting, covered with polyethylene sheeting, with the sheeting joints lapped in accordance with Section 903.3.		
3 - Modification:		
a. In areas with free draining soils, identified as Group 1 in the ICC IRC by a certified hydrologist, soil scientist, or engineer through a site visit, a gravel bed or geotextile matting is not required		
b. In dry climate locations, as defined by Figure 6(1), polyethylene sheeting is not required unless required for radon resistance (Section 902.3)		
903.2.2 Add a capillary break on footing to prevent moisture migration into foundation wall.	3	
903.3 Crawlspaces		
903.3.1 Crawlspace vapor retarder is in accordance with the following, as applicable. Joints of vapor retarder overlap a minimum of 6 inches and are taped.		

900 Indoor Environmental Quality	Points Possible	Points Received
1 - Floors. Minimum 6 mil vapor retarder installed on the crawlspace floor and extended up the wall sufficient to allow the material to be affixed with glue and furring strips.	6	
2 - Walls. Damp-proof walls are provided below finished grade.	**Mandatory**	
903.3.2 Crawlspace that is built as a conditioned area is sealed to prevent outside air infiltration and provided with conditioned air at a rate not less than 0.02 cfm per square foot of horizontal area and one of the following is implemented:		
1 - A concrete slab over lapped 6 mil polyethylene or polystyrene.	10	
2 - 6 mil polyethylene sheeting, lapped a minimum of 6 inches and taped at the seams.	8	
903.4 Moisture Control Measures		
903.4.1 Moisture control measures are in accordance with the following:		
1 - Building materials with visible mold are not installed or are cleaned or encapsulated prior to concealment and closing.	2	
2 - Walls are not enclosed if the insulation has a high moisture content. Wet insulation products are dry before enclosing.	**2 Mandatory**	
3 - The moisture content of lumber is sampled to ensure it does not exceed 19 percent prior to the surface and/or wall cavity enclosure.	4	
903.4.2 Moisture content of subfloor, substrate, or concrete slabs is in accordance with the appropriate industry standard for the finish flooring to be applied.	2	
903.5 Plumbing		
903.5.1 Plumbing distribution lines are not installed in exterior wall cavities.	2	
903.5.2 Cold water pipes in unconditioned spaces are insulated to a minimum of R-4 with pipe insulation or other covering that adequately prevents condensation.	2	
903.5.3 Plumbing is not installed in unconditioned spaces.	5	
903.6 Duct Insulation. All HVAC ducts, plenums, and trunks in unconditioned attics, basements, and crawl spaces are insulated to a minimum of R-6. Outdoor air supplies to ventilation systems are insulated to a minimum of R-6.		
1 - Insulated to a minimum of R-6.	**Mandatory**	
2 - Insulated to a minimum of R-8.	2	
903.7 Relative Humidity. In climate zones 1A, 2A, 3A, 4A and 5A as defined by Figure 6(1), equipment is installed to maintain relative humidity (RH) at or below 60 percent using one of the following:	8	
1 - Additional dehumidification systems.		
2 - Central HVAC system equipped with additional controls to operate in dehumidification mode.		

900 Indoor Environmental Quality	Points Possible	Points Received
904 Innovative Practices		
904.1 Humidity Monitoring System. A humidity monitoring system is installed with a mobile base unit that displays a reading of temperature and relative humidity at the base unit with a minimum of two remote units. One remote unit is placed permanently inside the conditioned space in a central location, excluding attachment to exterior walls, and another remote unit is place permanently outside of the conditioned space.	2	
904.2 Kitchen Exhaust. Kitchen exhaust units that equal or exceed 400 cfm and makeup air is provided.	2	
TOTAL POINTS FOR SECTION 900		

Chapter 10 – Operation, Maintenance, and Building Owner Education

1000 Operation, Maintenance, and Building Owner Education	Points Possible	Points Received
1001 Manual For One- and Two-family Dwellings		
1001.0 Intent. Information on the building's use, maintenance, and green components is provided.		
1001.1 A building owner's manual is provided that includes the following as available and applicable:	1	
1 - A green building program certificate or completion document.	**Mandatory**	
2 - List of green building features.	**Mandatory**	
3 - Product Manufacturer's manuals or product safety sheet for installed major equipment, fixtures, and appliances.	**Mandatory**	
4 - Information on local recycling programs.		
5 - Information on available local utility programs that purchase a portion of energy from renewable energy providers.		
6 - Explanation of the benefits of using energy-efficient lighting systems in high-usage areas.		
7 - A list of practices to conserve water and energy.		
8 - Local public transportation options.		
9 - A diagram showing the location of safety valves and controls for major building systems.		
10 - Where frost protected shallow foundations are used, owner is informed of precautions.		
11 - A list of local service providers that offer regularly scheduled service and maintenance contracts to ensure proper performance of equipment and the structure.		
12 - A photo record of framing with utilities installed.		
13 - Maintenance checklist.		
14 - List of common hazardous materials often used around the building and instructions for proper handling and disposal of these materials.		
15 - Information on organic pest control, fertilizers, deicers, and cleaning products.		
16 - Information on native landscape materials and/or those that have low-water requirements.		
17 - Information on methods of maintaining the building's relative humidity in the range of 30 percent to 60 percent.		
18 - Instructions for inspecting the building for termite infestation.		
19 - Instructions for maintaining gutters and downspouts and importance of diverting water a minimum of 5 feet away from foundation.		
20 - A narrative detailing the importance of maintenance and operation in retaining the attributes of a green-built building.		

1000 Operation, Maintenance, and Building Owner Education	Points Possible	Points Received
1002 Training of building owners on operation and maintenance for one- and two-family dwellings and multi-unit buildings		
1002.1 Training of Building Owners. Building owners/occupants are familiarized with the green building goals and strategies implemented and the impacts of the occupants' practices on the costs of operating the building. Training is provided to the responsible parties regarding all equipment operation and control systems. Systems include, but are not limited to, the following:	6	
1 - HVAC filters.		
2 - Thermostat operation and programming.		
3 - Lighting controls.		
4 - Appliances and settings.		
5 - Water Heater settings.		
6 - Fan controls.		
1003 Construction, Operation and Maintenance Manuals		
1003.0 Intent. Manuals are provided to the responsible parties, regarding the construction, operation, and maintenance, of the building. Paper or digital format manuals are to include information regarding those aspects of the buidling's construction, maintenance, and operation that are within the area of responsibilities of the respective recipient. One or more responsible parties are to receive a copy of all documentation for archival purposes.		
1003.1 Building Construction Manual. A building construction manual, including five or more of the following. (Points awarded per two items.)	1	
1 - A narrative detailing the importance of constructing a green building.	**Mandatory**	
2 - A local green building program certificate as well as a copy of the *National Green Building Standard* as adopted by the Adopting Entity and the individual measures achieved by the building.	**Mandatory**	
3 - Warranty, operation, and maintenance instruction for all equipment, fixtures, appliances, and finishes.	**Mandatory**	
4 - Record drawings of the building.		
5 - A record drawing of the site including storm water management plans, utility lines, landscaping with common name and genus/species of plantings.		
6 - A diagram showing the location of safety valves and controls for major building systems.		
7 - A list of the type and wattage of light bulbs installed in light fixtures.		
8 - A photo record of framing with utilities installed.		

1000 Operation, Maintenance, and Building Owner Education	Points Possible	Points Received
1003.2 Operations Manual. Operations manuals are created and distributed to the responsible parties in accordance with Section 1003.0. Between all of the operation manuals, five or more of the following options are included. (Points awarded per two items, and for both mandatory and non-mandatory items.)	1	
1 - A narrative detailing the importance of operating and living in a green building.	**Mandatory**	
2 - A list of practices to conserve water and energy.	**Mandatory**	
3 - Information on methods of maintaining the building's relative humidity in the range of 30 to 60 percent.	**Mandatory**	
4 - Information on opportunities to purchase renewable energy from local utilities or national green power providers and information on utility and tax incentives for the installation of on-site renewable energy systems.		
5 - Information on local and on-site recycling and hazardous waste disposal programs and, if applicable, building recycling and hazardous waste handling and disposal procedures.		
6 - Local public transportation options.		
7 - Explanation of the benefits of using compact fluorescent light bulbs, LEDs or other high-efficiency lighting.		
8 - Information on native landscape materials and/or those that have low water requirements.		
9 - Information on the radon mitigation system, where applicable.		
10 - A procedure for educating tenants in rental properties on the proper use, benefits, and maintenance of green building systems including a maintenance staff notification process for improperly functioning equipment.		
1003.3 Maintenance Manual. Maintenance manuals are created and distributed to the responsible parties in accordance with Section 1003.0. Between all of the maintenance manuals, five or more of the following options are included. (Points awarded per two items and for both mandatory and non-mandatory items.)	1	
1 - A narrative detailing the importance of maintaining a green building.	**Mandatory**	
2 - A list of local service providers that offer regularly scheduled service and maintenance contracts to ensure proper performance of equipment and the structure.		
3 - User-friendly maintenance checklist that includes:		
a. HVAC filters		
b. Thermostat operation and programming		
c. Lighting controls		
d. Appliances and Settings		
e. Water heater settings		
f. Fan controls		

1000 Operation, Maintenance, and Building Owner Education	Points Possible	Points Received
4 - List of common hazardous materials often used around the building and instructions for proper handling and disposal of these materials.		
5 - Information on organic pest control, fertilizers, deicers, and cleaning products.		
6 - Instructions for maintaining gutters and downspouts and the importance of diverting water a minimum of 5 feet away from foundation.		
7 - Instructions for inspecting the building for termite infestation.		
8 - A procedure for rental tenant occupancy turnover that preserves the green features.		
9 - An outline of a formal green building training program for maintenance staff.		
TOTAL POINTS FOR SECTION 1000		

Additional Points from Any Category

Item	Points Possible	Points Received
TOTAL POINTS FOR ADDITIONAL POINTS FROM ANY CATEGORY		